AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims 1-52 indicated as cancelled:

Claims 1-52 (Cancelled)

53. (New) A device for determining an in vivo condition, the device comprising:

an interaction chamber for receiving an in vivo sample; and

an imager for capturing an image of at least the interaction chamber;

wherein said interaction chamber and said imager are positioned behind an optical window.

54. (New) The device according to claim 53, wherein the interaction chamber includes at least an indicator for reacting with the in vivo sample for generating optical changes in the interaction chamber.

55. (New) The device according to claim 54, wherein the indicator is selected from the group comprising a pH indicator, an indicator of sugar or an antibody.

56. (New) The device according to claim 54, wherein the indicator includes a color changing indicator.

57. (New) The device according to claim 53, comprising a first interaction chamber comprising a first indicator and a second interaction chamber comprising a second indicator.

58. (New) The device according to claim 53, comprising an illumination source wherein at least a portion of the interaction chamber is transparent in the wavelength of an illumination provided by the illumination source.

59 (New) The device according to claim 53, comprising a micro pump for drawing the in vivo sample into the interaction chamber.

60. (New) The device according to claim 53, wherein the interaction chamber is sealed by at least one membrane which selectively enables passage of the in vivo sample but does not enable passage of the indicator.

61. (New) The device according to claim 53, said device comprising a lens.

62. (New) The device according to claim 53, wherein the imager is to capture images of a body lumen and of the interaction chamber.

63. (New) The device according to claim 53, said device comprising a transmitter.

64. (New) The device according to claim 53, wherein the imager is a CMOS.

65. (New) The device according to claim 53, wherein the device forms a capsule shape.

66. (New) The device according to claim 53, wherein the device is swallowable.

67. (New) The device according to claim 53, said device comprising a pump.

68. (New) The device according to claim 53, wherein the interaction chamber is a capillary.

69. (New) A system for determining body lumen conditions, the system comprising;

a device comprising:

an interaction chamber for receiving an in vivo sample;

an imager for capturing an image of at least the interaction chamber; and

wherein said interaction chamber and said imager are behind an optical window; and

a transmitter for transmitting image data; and

a receiving unit for receiving transmitted image data.

70. (New) The system according to claim 69, wherein the interaction chamber commprises a capillary.

71. (New) The system according to claim 69, wherein said device comprises a lens.

72. (New) A method for determining body lumen conditions, the method comprising:

receiving an endo–luminal sample in an interaction chamber, said interaction chamber including at least an indicator for reacting with an endo–luminal sample, said interaction chamber being behind an optical window;

illuminating the interaction chamber; and

imaging the interaction chamber.

73. (New) The method according to claim 72 comprising imaging the interaction chamber with an optical system.

74. (New) The method according to claim 72 comprising imaging optical changes in the interaction chamber.

75. (New) The method according to claim 72 comprising illuminating said interaction chamber wherein at least a portion of the interaction chamber is transparent in a wavelength of illumination.

76. (New) The method according to claim 72, comprising transmitting images to an external receiver.